

# Research Ethics and Researcher Integrity

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## Introduction

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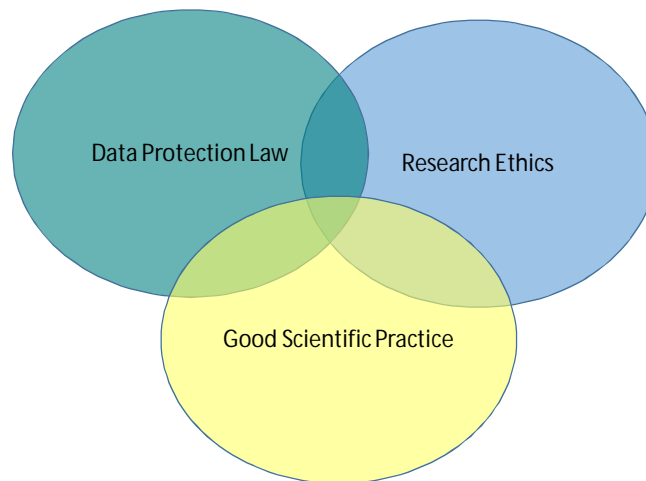
- Science and Society
- How and when do „ethics“ enter the debate?
- Applied Ethics as Reflexivity
- Guidelines and codes as „living documents“ (TCPS2)



## Defining „Research Ethics“

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“Working with a broad definition of “research ethics” that applies to various research contexts, the term might be understood as an umbrella term that addresses the social, political and moral dimensions of empirical research and captures a range of questions concerning the values that govern the research process. These questions range from the ‘larger’ role of social science research in society to decisions about study aims and methodology to the ‘smaller’ day-to-day decisions of how to act vis-à-vis partners and participants in specific research interactions and how to manage research relationships and information flow.” (von Unger 2016:88)



## The historical development of the debate

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- Milestones in the history of „Research Ethics“:
  - Nuremberg Code (1947)
  - Helsinki Declaration (1964)
  - Scandals in the US (Jewish Chronic Disease Hospital, Beecher Report, Milgram-Experiments, Tuskegee-Study)
  - National Research Act 1974 → National Commission for the Protection of Human Subjects in Biomedical and Behavioural Research (IRBs, Belmont Report 1979)
- Guidelines and Codes developed in the context of medical research were extended to the social sciences (without revision)



"Social scientists are angry and frustrated. They believe their work is being constrained and distorted by regulators of ethical practice who do not necessarily understand social science research. In the United States, Canada, United Kingdom, New Zealand and Australia, researchers have argued that regulators are acting on the basis of biomedically driven arrangements that make little or no sense to social scientists."

(Israel/Hay 2006: 1)



## The Situation in Germany

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- No „Regulatory Enterprise“ in the social sciences
- Very little debate about „research ethics“, except for scandals surrounding scientific misconduct (plagiarism, etc.)
- Currently: Increased attention (conferences, statements, publications)
  - New technologies – new questions (internet, social media)
  - International norms & standards (journals, EU funding)
- Research Ethics Committees founded at local institutions
- RatSWD (Oellers/Wegner 2009), DFG – where are we heading?



## Code of Ethics (German Sociology)

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- Researcher Integrity and Objectivity
- Protecting Participants
  - Avoiding harm, assessing the risks
  - Voluntary Participation
  - Informed Consent (though „not always possible“)
  - Confidentiality and Anonymity

(DGS 2014 [1993])



## Controversies, Questions and Debate

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- Informed consent in experimental designs, field experiments and ethnographic field research
- „Big data“ and data protection in the EU
- Social media research, visual data
- Anonymization in times of the internet (Tilley/Woodthorpe 2011)
- Digital archiving of qualitative data for secondary analysis
- Research ethics committees for the social sciences



## Memorable Quotes

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- “Die Quantis fragen uns immer: Wieso seid ihr nicht wie wir?” (Hirschauer)
- “Müssen wir braver sein als der Rest der Gesellschaft?” (Knoblauch)
- Wir beobachten eine “Gremisierung der Ethisierung” (Nassehi)
- “Der Teufel hole die Ethikkommissionen!” (Hitzler)
- „Studierende berichten, dass sie immer wieder in Forschungsprojekte ‚hineingeschubst‘ werden. Wenn sich forschungsethische Probleme ergaben, konnten sie mit niemandem darüber sprechen.“ (Ploder)



## Looking ahead

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- Create an infrastructure for ethical reviews
- Let’s not repeat the same mistakes (no „one fits all“ approach)
- Protect methodological diversity and ensure that the diversity of ethical positions, arguments and practices is respected (Unger & Simon 2016)
- Foster ethical reflexivity in research practice (and publications)
- Integrate research ethics into methods training
- Conduct sociological research on research ethics

# German Research Foundation (DFG): Guidelines for Good Scientific Practice (1998/2013)



A case of scientific misconduct that was widely discussed in public both in Germany and abroad has led the Executive Board of the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) to appoint an international commission chaired by the President with the mandate,

- ▶ to explore causes of dishonesty in the science system,
- ▶ to discuss preventive measures,
- ▶ to examine the existing mechanisms of professional self-regulation in science and to make recommendations on how to safeguard them.

Foreword to first edition (DFG 2013[1998]: 62)

The scandal: Prof. Friedhelm Herrmann (& Dr. Marion Brach) accused of data fraud in their medial research on cancer therapy; 1997 - 2004

## Good Scientific Practice



### Recommendation 1: Good Scientific Practice

*Rules of good scientific practice shall include principles for the following matters (in general, and specified for individual disciplines as necessary):*

- ▶ *fundamentals of scientific work, such as*
  - *observing professional standards,*
  - *documenting results,*
  - *consistently questioning one's own findings,*
  - *practising strict honesty with regard to the contributions of partners, competitors, and predecessors,*
- ▶ *cooperation and leadership responsibility in working groups (Recommendation 3),*
- ▶ *mentorship for young scientists and scholars (Recommendation 4),*
- ▶ *securing and storing primary data (Recommendation 7),*
- ▶ *scientific publications (Recommendation 11).*

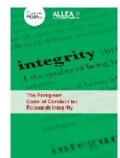
(DFG 2013: 69)

# The European Code of Conduct for Research Integrity



(ESF/ALLEA 2011)

## Foreword



Science is expected to enlarge mankind's knowledge base, provide answers to global challenges, and guide decisions that shape our societies. Yet when science is compromised by fraudulent activities, not only the research enterprise stumbles, but also society's trust in it. Thus, researchers and leaders throughout the world should ensure that science is trustworthy to our best knowledge. This can be achieved by education, promoting a culture of integrity, and by development of and compliance with joint rules and norms.

(ESF/ALLEA 2011:3)



## Preamble

### 2.1.1 Preamble

This Code of Conduct is not a body of law, but rather a canon for self regulation. It is a basic responsibility of the scientific community to formulate the principles and virtues of scientific and scholarly research, to define its criteria for proper research behaviour, and to set its own house in order in case scientific integrity is threatened.

Science as the process of knowledge augmentation is embedded in a wider socio-ethical context, and scientists must be aware of their specific responsibility towards society and the welfare of mankind. They bear responsibility for the choice of subjects to be investigated and its consequences, for proper care and treatment concerning the objects of research, and attention and concern with respect to practical applications and use of their research results. In this Code, however, we confine ourselves to standards of integrity while *conducting* research, and do not consider this wider socio-ethical responsibility.



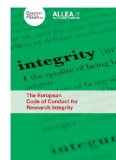
(ESF/ALLEA 2011:8)

## Principles of Integrity

- **Honesty** in presenting research goals and intentions, in precise and nuanced reporting on research methods and procedures, and in conveying valid interpretations and justifiable claims with respect to possible applications of research results.
- **Reliability** in performing research (meticulous, careful and attentive to detail), and in communication of the results (fair and full and unbiased reporting).
- **Objectivity**: interpretations and conclusions must be founded on facts and data capable of proof and secondary review; there should be transparency in

the collection, analysis and interpretation of data, and verifiability of the scientific reasoning.

- **Impartiality and independence** from commissioning or interested parties, from ideological or political pressure groups, and from economic or financial interests.
- **Open communication**, in discussing the work with other scientists, in contributing to public knowledge through publication of the findings, in honest communication to the general public. This openness presupposes a proper storage and availability of data, and accessibility for interested colleagues.
- **Duty of care** for participants in and the subjects of research, be they human beings, animals, the environment or cultural objects. Research on human subjects and animals should always rest on the principles of respect and duty of care.
- **Fairness**, in providing proper references and giving due credits to the work of others, in treating colleagues with integrity and honesty.
- **Responsibility for future science generations**. The education of young scientists and scholars requires binding standards for mentorship and supervision.



(ESF/ALLEA 2011:10-11)

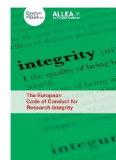


## Data Practices

### 1. Good data practices: availability and access

- All primary and secondary data should be stored in a secure and accessible form.
- Original scientific or scholarly research data should be documented and archived for a substantial period (at least 5 years, and preferably 10 years).
- Research data should be placed at the disposal of colleagues who want to replicate the study or elaborate on its findings.
- Freedom of movement of scientists, the right to peaceably and voluntarily associate with other scientists, and the freedom of expression and communication should be guaranteed.

(ESF/ALLEA 2011:13)



## Research Procedures

### 2. Proper research procedures

- All research should be designed and carried out in a careful and well considered manner; negligence, haste, carelessness, and inattention should be avoided, so as to prevent human errors.
- Researchers should try to deliver what has been promised in the application for support or funding.
- Researchers must seek to minify any harmful impact on the environment, and should be aware of the need for sustainable management of resources; this implies an efficient deployment of the (financial and other) resources, and minimisation of waste.

- Clients and/or sponsors should be alerted to the ethical and legal obligations of the researcher, and to the possible restrictions this may imply.
- Clients and/or sponsors should be made aware of the vital importance of publication of the research findings.
- Confidentiality of data or findings should be respected by the researcher when it is legitimately required by the client or employer.
- Proper account will be given to the sponsor in case a grant or co-funding was received for the research.

(ESF/ALLEA 2011:13-14)

## Research Procedures

### 3. Responsible research procedures

- All research subjects, be they human, animal, cultural, biological, environmental or physical, should be handled with respect and care.
- The health, safety or welfare of the community, or of collaborators and others connected with the research, should not be compromised.
- Sensitivity to age, gender, culture, religion, ethnic origin and social class of research subjects should be evinced.
- Human subject protocols should not be violated: this implies complying with the requirement of informed consent on the basis of adequate and appropriate information, and to voluntary agreement to participate, treating personal information with highest possible confidentiality, avoiding unnecessary deception, and using the obtained information only for the purpose of the investigation.
- The use of animals in research is acceptable only if alternative ways to achieve the results have been investigated and have been found inadequate; any harm or distress to be inflicted on an animal must be outweighed by the realistic expected benefits and must be minimised as much as possible.



(ESF/ALLEA 2011:14)

## Publication

### 4. Publication-related conduct

- Researchers should publish the results and interpretations of their research in an open, honest, transparent and accurate manner.
- Researchers should strive to ensure the earliest possible publication of the results of their research, unless commercial or intellectual property considerations (e.g. patent application) justify delay.
- Authorship should only be based on a creative and significant contribution to the research (i.e. contribution to the design, data collection, data analysis, or reporting, not for general supervision of a research group or editing of text). Guest authorship (i.e. listing authors who do not qualify) or ghost authorship (i.e. omitting individuals who meet authorship criteria) are not acceptable. All authors are fully responsible for the content of the publication, unless it is specified they are responsible only for a specific part of the study and publication.



(ESF/ALLEA 2011:14)

## Publication (cont.)

- Sequence of authors should be agreed by all authors, ideally at the start of the project or the initiation of the article/monograph, and may follow national and/or disciplinary codes. The criteria for deciding the order of authors should be agreed at the start of the project or writing.
- The work and contribution of collaborators and assistants should be acknowledged if appropriate, with their permission.
- All authors should declare any relevant conflict of interest, which may be financial, commercial, personal, academic, or political.
- Important work and intellectual contributions of others that have influenced the reported research should be appropriately acknowledged. Related work should be correctly cited. References should be restricted to (paper or electronically) printed publications and publications 'in print'.
- In communication with the general public and in popular media the same standards of honesty and accuracy should be maintained; any attempt to exaggerate the importance and practical applicability of the findings should be resisted.
- Publication of the same (or substantial parts of the same) work in different journals is acceptable only with the consent of the editors of the journals and where proper reference is made to the first publication. In the author's CV such related articles must be mentioned as one item.
- Financial or other types of support for the research and its publication should be properly mentioned and acknowledged.

(ESF/ALLEA 2011:14)

## The Dilemma of „Dual Use“




Scientific Freedom and Scientific Responsibility

Recommendations for Handling Security-Relevant Research

(DFG & Leopoldina 2014)

Research plays a fundamental role in ensuring progress. Freedom of research, which is enshrined in the German Basic Law, is a fundamental requirement in this respect. Yet free research is also associated with risks. These risks result primarily from the danger of useful research findings being misused (known as the *dual use dilemma*). Legal regulations can only cover these risks to a limited extent.

(DFG & Leopoldina 2014:8)

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Yet free and transparent research is also associated with risks. Such risks do not necessarily result from negligence or deliberate misconduct by scientists. In all areas of science, there is also the danger that findings – which are neutral or useful per se – may be misused by third parties for harmful purposes. In defence technology, materials research and nanotechnology can lead to the development of offensive weapons; research on industrial robots can enable the construction of robots for combat; atomic energy can be used for non-peaceful purposes. Research findings on pathogenic microorganisms and toxins can also be used for new biological weapons and terrorist attacks, and genetic analyses of plants at the molecular level can lead to biological attacks on seeds. In computer science, research into protecting systems against computer viruses can facilitate not only their prevention but their spread and new forms of cyber warfare. Misuse of research is also feasible in medicine as well as in the behavioural sciences and social sciences. Psychological, medical and neurobiological research can support aggressive interrogation techniques up to and including torture. Optimising the collection, matching and analysis of personal data can lead to a violation of personal rights. Linguistic research on speech recognition systems can also be employed to inappropriately monitor communications. Legal and philosophical publications can be misused to justify human rights abuses. Risks of misuse therefore exist in most areas of research. At the same time, failing to conduct research can also entail significant risks, such as when a vaccine needs to be found to avert an imminent epidemic.

(DFG & Leopoldina 2014:9)

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Science serves to increase knowledge and has a duty to promote human well-being and the protection of the environment and other values – especially those that are constitutionally protected. Researchers need to prevent direct and indirect harm to these values as far as possible.

(DFG & Leopoldina 2014:11)

#### Recommendations:

- Risk Analysis
- Minimising Risk
- Evaluating Publications
- Forgoing research as a last resort
- Documentation and communication of risks
- Training and Information
- Persons responsible - and organisational responsibilities

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## Discussion

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